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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,970	02/15/2002	Hideki Kobayashi	TSL1515DIV	2779

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EXAMINER

PENG, KUO LIANG

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/076,970

Applicant(s)

KOBAYASHI ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1712

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 2/15/02 IDS.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Nye (US 6 365 141).

Nye discloses a method of reacting a silylhydride-functional polysiloxane with a terminally unsaturated arylalkene such as styrene or 2-phenylpropene, etc. in the presence of a supported platinum catalyst to afford an arylsiloxy having a structure of formula (I) wherein  $R^1$  and  $R^{10}$  are arylalkyl groups such as, phenylethyl, phenylpropyl, 2-(1-naphthyl)ethyl, etc.;  $R^2$ ,  $R^3$ ,  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  can be  $C_1$ - $C_6$  alkyl;  $n$  is 0; and  $m$  can be 2 to 5 (col. 1 line 65 to col. 2, line 18, col. 2, line 58 to col. 3, line 5, col. 3, lines 28-45 and Example 1). The  $R^2$ ,  $R^3$ ,  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  and  $m$  can be exemplified as methyl group and 3, respectively, as indicated in Example 1. Since Nye's arylsiloxy reads on the limitation of Applicants' pentasiloxane, it should have the same physical properties such as refractive index and viscosity claimed by Applicants.

### *Claim Rejections - 35 USC § 103*

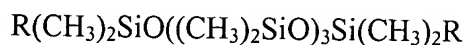
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1712

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morehouse (US 3 839 384) in view of Akamatsu (US 5,300,669).

Morehouse discloses a method for preparing a pentasiloxane having the formula



wherein R is 2-methylphenethyl group by reacting hydrosilylating

$\text{H}(\text{CH}_3)_2\text{SiO}((\text{CH}_3)_2\text{SiO})_3\text{Si}(\text{CH}_3)_2\text{H}$  with  $\alpha$ -methylstyrene or styrene (col. 2, line 66 to col. 3, line 8, Example 10 and Table 1). Since Morehouse's pentasiloxane reads on the limitation of Applicants' pentasiloxane, it should have the refractive index claimed by Applicants.

The difference between Morehouse and present invention is the requirement of the hydrosilylation being carried out in the presence of a supported platinum catalyst.

Morehouse's hydrosilylation catalyst is  $\text{H}_2\text{PtCl}_6 \cdot \text{H}_2\text{O}$  (i.e., chloroplatinic acid)(col. 11, line 44). Furthermore, Akamatsu discloses a process of hydrosilylating 1,1,3,3-tetramethyldisiloxane with  $\alpha$ -methylstyrene in the presence of chloroplatinic acid, platinum-on-inorganic powder (i.e., supported) catalyst (col. 2, lines 57-58 and col. 3, line 1). In other words, Akamatsu teaches the interchangeability between chloroplatinic acid and platinum-on-inorganic powder as a hydrosilylation catalyst. The motivation of using the platinum-on-inorganic powder as a catalyst in the hydrosilylation reaction is to afford a silicone oil having arylalkyl group (col. 2, lines 29-30).

In light of the above discussion, it would have been obvious to one of ordinary skill in the art at the time of invention to use platinum-on-inorganic powder as a hydrosilylation catalyst in the process of Morehouse's.

5. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of Nye, Morehouse and Akamatsu teaches or fairly suggests a method of preparing a silicone oil having a refractive index of from 1.45 to 1.50 by reacting the aryl-containing olefin with a pentasiloxane wherein the pentasiloxane is prepared by a nonequilibrium reaction between hexamethylcyclotrisiloxane and 1,1,3,3-tetramethyldisiloxane in the presence of an acid catalyst.

*Allowable Subject Matter*

6. Claims 10-12 are allowed.

7. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: Nye, Morehouse and Akamatsu.

None of Nye, Morehouse and Akamatsu teaches or fairly suggests a method of preparing an aralkyl modified silicone oil by hydrosilylating a mixture of a dihydridopentasiloxane and a dihydriodisiloxane set forth in the instant claims.

8. Applicants file a copy of PTO-1449 form and a copy of PTO-892 form on February 15, 2002. Both forms are a photocopy of the ones from the parent application (09/489,417). Therefore, although all of the references cited therein have been considered, there is no new-signed PTO-1449 form to sent to Applicants.

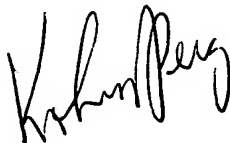
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (703) 306-5550. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson, can be reached on (703) 308-2340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kuo-Liang Peng

June 10, 2003

A handwritten signature in black ink, appearing to read 'Kuo-Liang Peng', is written over the typed name and date.